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ABSTRACT

Legislation regarding federal assistance to health professionals is reviewed with tables included on specific expenditures and enrollments. The 1963 Health Professions Educational Assistance Act provided financial assistance for schools in two areas: subsidies for construction of new capacity and loans to students. Amendments to the act in 1965 continued those two programs and added three new ones for financial assistance. They added basic improvement grant, special improvement grant, and scholarship programs, as well as new appropriations for student loans. The Health Manpower Act of 1968 continued with modifications the earlier legislation and also covered nurse training, allied health professions and public health training, and health research facilities. Details are given on Title I, Health Professions Training. The Comprehensive Health Manpower Training Act of 1971 made extensive additions and modifications to the H.P.E.A. program, with programs more explicitly defined, requirements for receiving federal funds raised, and incentives for increasing enrollments and graduates increased. The most extensive changes came in the area of institutional support to schools. (LBH)

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AN OVERVIEW OF THE HEALTH PROFESSIONS EDUCATIONAL ASSISTANCE ACT, 1963-1971

by Owen MacBride

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HE 006 609

TABLE OF CONTENTS

I. 1963 Act.

II. 1965 Amendments.

III. Health Manpower Act of 1968.

IV. Comprehensive Health Manpower Training Act of 1971.

V. Expenditures and Enrollments Under the H.P.E.A.

Tables.

AN OVERVIEW OF H.P.E.A. LEGISLATION

I. 1963 Act

Federal aid to health professions schools was begun in a large scale with the Health Professions Educational Assistance Act of 1963, Public Law 88-129 (H.R. 12). This law provided financial assistance for schools in two areas: subsidies for construction of new capacity and loans to students.

Funds were provided for the construction of new teaching facilities, and the rehabilitation of existing facilities, in schools of medicine, pharmacy, optometry, podiatry, nursing, public health, and dentistry. Where the project was to renovate or rehabilitate existing facilities, funds were to be available only for that much of the project necessary to prevent a curtailment of enrollment or quality of training of the school. The Federal money was matching money: for new schools or major expansions of existing schools, the Federal share of total expenditures was not to exceed 66 2/3 percent, while for other projects the Federal share was to be a maximum of 50 percent. (There was one exception to this. The maximum Federal share of construction for public health schools could be 75 percent.)

To receive construction funds, a school had to provide "adequate assurances" in four areas. First, the facility was to be used for teaching purposes for at least 10 years. Second, sufficient funds had to be available to meet the non-Federal share of construction costs. Third, sufficient funds had to be available to operate the new facility, once constructed. Fourth, for construction of new schools or major expansions of existing ones, there had to be a small enrollment increase.

The first-year enrollment for each of the succeeding nine school years was to exceed the highest first year enrollment of the five previous years (before application for funds was made) by five percent or five students (whichever greater).

Student loan funds went only to schools of medicine, dentistry, and osteopathy. Loan funds provided by the government and by the schools were to be in an 8:1 ratio (or lower). The maximum loan to a student was to be $2000 per year, with repayment to be made within a 10 year period beginning three years after the student's graduation.

Under P.L. 88-129, about $97.1 million in Federal funds were expended in fiscal year 1965 (the first year in which funding became available - see Tables 1, 5). $86.9 million of this total went for construction of medical, dental, and osteopathic teaching facilities (Table 1). The other $10.2 million was distributed as loans to 11,554 students of medicine, dentistry, osteopathy, and optometry (Tables 5, 6).

II. 1965 Amendments

The 1965 amendments to H.P.E.A., Public Law 89-290 (H.R. 3141), continued the two programs initiated in 1963 and added three new programs of financial assistance. New funds for construction subsidies were appropriated through fiscal year 1969, with the only change in the requirements for receiving Federal aid being that now the facility was to be used for teaching purposes for 20 years, rather than 10. A total of about 597.7 million dollars was eventually expended in f.y. 1966-1969 for construction of teaching facilities (Table 1).

New appropriations were also made for student loans, with the maximum annual per-student loan being raised to $2500. In addition, a loan forgiveness program was started. For practice, upon graduation, in a health professional "shortage area", the loan recipient could have his loan forgiven at a rate of 10 percent per year of "shortage area" practice, up to a maximum concellation of 50 percent. Loans went to students of medicine, dentistry, osteopathy and optometry in fiscal year 1966. Students of pharmacy and podiatry were included in the program in 1967, and students of veterinary medicine in 1968 (Table 5).

The 1965 amendments added basic improvement grant, special improvement grant, and scholarship programs to H.P.E.A. Under the basic improvement grant formula, each approved school was to get $12,500 plus $250 per full-time student in fiscal year 1966, and $25000 plus $500 per full-time student in each of fiscal years 1967, 1968, and 1969. An enrollment increase requirement was attached to these grants. A school receiving a grant was required to provide "reasonable assurances" that its first-year enrollment for each year in which a grant was received would exceed the school's highest first-year enrollment during 1960-1965

by 2.5 percent or five students (whichever greater). However, the enrollment increase requirement could be waived if it appeared to the granting authorities that the enrollment increase could not be achieved without a reduction in the quality of training at the school.

Funds for special improvement grants were to come from the funds "left over" after basic improvement grants were distributed. Special improvement grants were to finance projects designed to (1) attain or maintain the schools' accreditation, or (2) contribute toward the maintenance or provision of the specialized functions which the health professions school serves.

Both basic improvement and special improvement grants were available only if the recipient school agreed to expand, in each year a grant was received, as much non-Federal money as it had spent, on the average, during the three previous years.

Schools of medicine, osteopathy, dentistry, optometry, and podiatry received a total of approximately $106.3 million in basic improvement grants during fiscal years 1966-1969 (Table 3). Special project grants were not awarded in 1966 and 1967 due to lack of funding; however, $10.1 million in 1968 and $32.3 million in 1969 was awarded under this program to the medicine, dentistry, osteopathy, optometry, and podiatry schools (Table 4).

A scholarship program was also initiated for students of medicine, osteopathy, dentistry, podiatry, pharmacy, and optometry. Funds for this purpose were to be distributed to these schools under the following formula:

Fiscal year 1966 = \$2000 x $\frac{1}{10}$ (first-year enrollment)

Fiscal year 1967 = \$2000 x $\frac{1}{10}$ (first- and second-year enrollment)

Fiscal year 1968 = \$2000 x $\frac{1}{10}$ (first-, second-, and third-year enrollment)

Fiscal year 1969 = \$2000 x $\frac{1}{10}$ (total enrollment, all four classes)

Fiscal years 1970-1972 = sufficient funds to allow continued support of those students who received scholarships in fiscal years 1966-1969.

The maximum scholarship award was to be \$2500 per student per year. Only those students who were in the classes which were the computational "base" in each year were eligible to receive awards.

A total of \$116.3 million in financial aid went to health professions students during 1966-1969 (Table 5).* Of this total approximately \$94.0 million was in loan funds and \$22.3 million in scholarships (Table 6). Table 6 also shows that while the maximum permissible loan or scholarship was \$2500, the awards on the average actually fell well below this. The highest average "loan per recipient" was \$1256 (1967), while the highest average "scholarship per recipient" was \$1013 (also 1967).

*The scholarship program did not actually begin, in terms of awards to students, until fiscal year 1967.

III. Health Manpower Act of 1968

The Health Manpower Act of 1968, Public Law 90-490 (S.3095), continued (with modifications) the Health Professions Educational Assistance program and also covered nurse training, allied health professions and public health training, and health research facilities. We will deal here with Title I, Health Professions Training.

New appropriations were passed for construction projects. More leniency was now allowed in providing Federal money for constructing "multi-purpose" facilities, i.e., those used for other things in addition to teaching (e.g., research). Total Federal expenditures under this construction section exceeded $503.6 million in fiscal years 1970-1971 (Table 1).

The student assistance programs (loans and scholarships) were maintained in essentially their same form. One modification was the extension of scholarship assistance to students of pharmacy and veterinary medicine. A total of over $71.6 million in student assistance was expended by the government in fiscal years 1970-1971, with $40.7 million of this total being distributed in loans and $31.0 million in scholarships (Tables 5, 6).

The most significant modifications under the Health Manpower Act of 1968 came in the area of basic improvement and special improvement grants. Basic improvement grants (now formally called "institutional grants") were extended to schools of pharmacy and veterinary medicine, as well as to those of medicine, osteopathy, dentistry, optometry, and podiatry. These funds were to be distributed as follows: each school with an "approved application" was to receive $25,000 (in each year). Of the remaining funds

(in each year), 75 percent was to be distributed among the "approved" schools on the basis of (i) relative enrollments of full-time students and, (ii) relative increases in enrollment for that year over the average enrollment for the five previous years, with schools to receive twice as much "credit" for each student in the "increase" as for other full-time students. (The students in the "increase" referred to here meant those in the increase beyond the basic enrollment increase requirement.) The other 25 percent of remaining appropriations was to be distributed on the basis of relative numbers of graduates for the year. The basic enrollment increase requirement used in the 1965 amendments (2.5 percent or 5 students) was retained, but the "base" was shifted from 1960-1965 to 1963-1968. Finally, no institutional grant was to exceed the total non-Federal funds expended by the school for teaching purposes during the preceeding year.

Funds for special project grants were again to come from appropriations "left over" after institutional grants were distributed. Special project grants were to be given for the following purposes: (1) to establish new educational programs or modify old ones; (2) to effect curriculum improvements; (3) for research in education-related fields; (4) to develop training for new types of personnel; (5) to assist schools in serious financial straits to meet costs of operation or accreditation requirements; or (6) to set up experimental teaching and training facilities. In awarding grants, the following considerations were to be relevant: (1) would the project increase enrollments; (2) would the project result in shorter training times; (3) how badly did the applying school need financial aid.

Like institutional grants, special project grants were extended to schools of pharmacy and veterinary medicine, in addition to schools of medicine, osteopathy, dentistry, optometry, and podiatry.

Institutional (basic improvement) grants totaling $93.3 million were awarded in fiscal years 1970 and 1971 (Table 3). Special project grants, which increased greatly as a percent of total Federal expenditures in 1970-1971 over 1968-1969, totaled over $154.8 million in fiscal year 1970-1971 (Tables 1, 4).

IV. Comprehensive Health Manpower Training Act of 1971

The Comprehensive Health Manpower Training Act of 1971, Public Law 92-157 (H.R. 8629) made extensive additions and modifications to the H.P.E.A. program. Programs were more explicitly defined, requirements for receiving Federal funds were raised, and incentives for increasing enrollments and graduates were increased. The most extensive changes came in the area of institutional support to schools.

Health professions schools were now to receive "capitation grants" on the basis of size of enrollment and numbers of graduates. Federal funds were to be awarded via several formulas, depending on the "category" into which the health professions school fell. These "formulas" and categories were as follows:

A. Four-year schools of medicine, dentistry, and osteopathy:

(1) $2500 per first-, second-, and third-year student, and $4000 per graduate, in that year.

(2) except for schools with three-year programs, which receive $2500 per student and $6000 per graduate, in that year

(3) or schools in which a student could receive an M.D. degree within six years after graduation from secondary school; these schools receive $2500 per each student in the last three years of the program, and $6000 per graduate.

(4) $1000 per physician assistant or dental therapist student

(5) $1000 per "enrollment bonus" student (defined below)

B. Two-year schools of medicine:

(1) $2500 per-student

(2) $1000 per "enrollment bonus" student

(3) $1000 per physician assistant student

C. Schools of veterinary medicine:

(1) $1750 per-student

(2) $750 per "enrollment bonus" student

D. Schools of optometry:

(1) $800 per-student

(2) $320 per "enrollment bonus" student

E. Schools of pharmacy: same as schools of optometry

F. Schools of podiatry: same as schools of optometry

G. Any school of medicine, dentistry, or osteopathy with a first-year enrollment of less than 50 students: an additional $50,000 grant.

The definition of an "enrollment bonus" student was not clear in the law. The "basic" enrollment increase requirement, in order to receive capitation funding, was that "reasonable assurances" be given that the first-year class in the year a grant was given would exceed the 1970-1971 first-year class by 10 percent, if the 1970-1971 class was less than 100; or by 5 percent or 10 students (whichever greater) if the 1970-71 first-year class had exceeded 100 students. Apparently, any enrollment increase above this entitled a school to "enrollment bonus" funds. However, no school could receive more than $150,000 in "enrollment bonus" awards in a year.

There were further requirements to receiving capitation funding. First, the recipient school must expend, in carrying out its function as

a school, an amount of non-Federal funds equal to its average expenditures in this area over the three previous fiscal years. Second, for any school receiving capitation funds for the first time ever after June 30, 1971, that school must have plans for projects in at least three of the following categories: (1) improving curriculum (including shortening training); (2) establishing cooperative interdisciplinary training; (3) training new types of personnel; (4) making innovative changes in existing programs; (5) increasing the supply of health professionals; (6) training in certain specified areas; (7) increasing enrollments of minority or "disadvantaged" students; (8) training in family medicine. As a further condition to receiving capitation money, the Secretary of D.H.E.W. reserved the right to make on-site inspections to monitor these projects.

New funds were also appropriated for special project grants. The "special projects" were to be carried out in one of several areas, similar to those listed above as capitation grant projects. Also, grants were made available to schools for "health manpower education initiative" projects. An example of an eligible project would be one "to provide training programs leading to more efficient utilization of health personnel" (other possibilities were enumerated).

However, special project grants were no longer to be granted to alleviate financial distress. Instead, a separate program of "financial distress aid" grants to schools was created. Receipt of funds under this program carried the same "maintenance of effort" requirement, with respect to non-Federal funds, as did capitation grants.

"Start-up aid" to new health professions schools was also made available. Funds under this program were to be distributed to new schools as follows:

Year preceeding opening: $10,000 x estimated number of students in first year of operation

First year of operation: $7500 per-student (enrollment must exceed 22 students)

Second year: $5000 per-student

Third year: $2500 per-student

Two-year medical schools expanding to a four-year program: $50,000 per student in the first "third-year" class.

In the distribution of the "start-up" funds, special attention was to be given to those schools which would use the money to accelerate their opening.

The student aid program was also substantially changed to increase the total number of students, the number of "minority" students, and the number of students who would practice in "shortage areas". The maximum per-student loan was raised to $3500 per year, and the maximum scholarship also to $3500. Scholarship funds were provided to schools under the following formula:

Fiscal year 1972: $3000 x $\frac{1}{10}$ (total enrollment)

Fiscal year 1973-74: $3000 x $\frac{1}{10}$ (total enrollment) or $3000 x "low income background" students (whichever greater)

Fiscal year 1975-77: sufficient funds to maintain support for those students receiving it in earlier years

The "shortage area" program was expanded in the loan section with higher cancellation rates, and extended into the scholarship section. A loan recipient was now entitled to have up to 85 percent of his loan (principal plus interest) cancelled for practicing in an area which had a shortage of his type of health professional. Cancellation was at the rate of 30 percent for one year of practice, 30 percent for the second, and 25 percent for the third.

Medical students were entitled to receive up to $5000 per year in Federal scholarships if they would agree to practice in a physician shortage area, or in an area where they would treat primarily migratory farm workers and their families. For each year in which a student received scholarship aid, he was required to practice 12 months in a "shortage" area upon graduation. This requirement could be waived if "extreme hardship" to the student would otherwise result. The available funds under this program were to be distributed according to the following priorities: (1) students from low-income background residing in shortage area who agree to practice there; (2) students residing in shortage area who agree to practice there; (3) students from low-income backgrounds; (4) any other applicants.

Federal financial aid was also provided for medical students studying at schools outside the U.S. To receive a loan or scholarship, such a student had to demonstrate that he had not been accepted by any U.S. medical school, and that at least one such school had found him qualified to study medicine, but had rejected him because the number of qualified applicants exceeded the number of available first-year spaces. Scholarships in this area were limited to $3500 per student per year, with the

added requirement that the student must agree to practice in the U.S. for at least five years.

The program of Federal construction subsidies was extended through 1974 with new appropriations. The maximum Federal share of costs was raised to 80 percent for major expansions or new constructions, and 50-80 percent for other projects. While it was still in general required that a Federally-funded facility be used primarily for teaching purposes for 20 years, funds became available to construction of "interim" facilities to be used less than 20 years.

A loan and interest guarantee program for construction projects was also begun. The government could now further assist health professions schools in construction by making loan guarantees, up to 90 percent of the cost of the project. The government could also subsidize the first three percent of any interest rate which a school had to pay in borrowing construction funds.

For the first time, Federal financial support was made available for post-graduate health professions programs. Appropriations were made for grants, to hospitals, for training, traineeships, and fellowships in family medicine. Additionally, capitation awards became available, to schools and hospitals, of $3000 per post-graduate medical, dental, or osteopathic student. The school or hospital receiving these funds was required to show it would increase the number of graduate training places open, and to demonstrate how the funds would be used to meet costs of education.

Finally, the Comprehensive Health Manpower Training Act ordered that two studies be made. One was to be of health facilities construction

costs, the other of the costs of educating students of the various health professions.

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V. Expenditures and Enrollments Under the H.P.E.A.

Over time, the H.P.E.A. has shifted in emphasis from construction support to schools to institutional support for schools. Table 1 shows that from 1965-1971 construction subsidies steadily decreased as a percentage of total Federal expenditures, from 100 percent to 44.2 percent (this is percent of Federal dollars used directly by the schools: construction funds and institutional-type grants. Student aid funds, which go to students, although the school may perform an intermediary function, are excluded from the total). Basic improvement (institutional) grants have remained relatively constant - they were 13.8 percent of total expenditures in 1966 and 17.7 percent in 1971. However, since total Federal funding to health professions schools increased more than three-fold between 1965 and 1971 ($86.9 million to $263.9 million), total dollars spent for construction and basic improvement have actually increased over time. Special improvement support, which was not started until 1968, has increased tremendously. It was 6.5 percent of total expenditures in 1968 and 38.1 percent in 1971.

This shift away from emphasis on construction subsidies might be due to the high per space costs which occurred in the construction area. Table 2 shows that the average construction cost per new-student space, in all health professions schools, was $293,101. Some disciplines had much higher per-space costs: dental schools, $307,727; medical schools, $465,027; and osteopathy schools, $1,077,908. Surprisingly, average costs were uniformly higher for new spaces in expanded, existing facilities than for construction of new schools. For example, "expansion" places in medical

schools averaged $573,151, while "new school" spaces averaged $305,766. For all schools, "expansion" places averaged $310,440, while "new school" spaces averaged $244,444. These data indicate (a) it is probably cheaper to build large, new schools than to add new capacity to existing schools; (b) substantial sums may have been spent for renovation and remodelling, as well as plant expansion, at existing health professions schools. Finally, the focus of the construction program was clearly on expansion rather than new school construction. Existing schools received $586,079,823 in Federal money, while new schools received only $198,846,111.

It is not clear whether maximum limits on loans and scholarships are intended merely to be a top limit, or whether they are intended to represent the approximate level of support which it is thought students require. However, the average loan and scholarship per recipient under H.P.E.A. has fallen far short of the legal maximums. Total dollars allocated for student aid, numbers of students eligible, and number of students receiving aid have all increased substantially over time, with the result that the "average loan per recipient" has generally stayed in the $1000-$1200 area, and "average scholarship per recipient" has remained around $800-$900 (see Table 6).

Total enrollments, first-year enrollments, and graduates in all health professions schools have increased since H.P.E.A. began, although not by as much as one might expect given the dollars spent. For example, Table 2 indicates that Federal expenditures during 1965-1971 resulted in construction of 1123 new first-year dental spaces; however, Table 9 shows actual first year enrollment in dental schools increased by only 909 over this period. Medical schools supposedly increased first-year places

by 2695, but actual first year enrollments increased only by 2492 between 1965-1971. Given these findings, it is clear that medical and dental schools could not have also substantially expanded enrollments under the "enrollment increase requirements" attached to institutional grants, as they were supposed to do. Further, with such small enrollment increases compared to dollars spent, it is clear that much of the Federal money was spent either in "rescuing" financially-distressed health professions schools, or on projects which increased the quality or embellishments of the training program without increasing enrollments.

There is obviously at least a five-year lag between the time a typical health professions school begins a construction-expansion project and the time this new capacity yields its first graduates. Therefore, with most of the new graduates being due to construction-expansion rather than other enrollment increase requirements, one would not expect large increases in graduates to appear until 1969 or later. Table 9 shows this to be true for schools of dentistry, medicine, and osteopathy.

The Comprehensive Health Manpower Training Act of 1971 was obviously designed to get greater output, in terms of new health manpower, per dollar spent, than did its predecessor laws, and also to increase minority enrollments, distribution of personnel, etc. It will be interesting to see, when further data on expenditures and enrollments becomes available, whether this law will be successful in this respect.

TABLE I: DISTRIBUTION OF FEDERAL AID TO HEALTH PROFESSIONS SCHOOLS AMONG H.P.E.A. PROGRAMS, FISCAL YEARS 1965 - 1971

Fiscal Year	Total Federal Dollars [1]	Construction (Percent)	Basic Improvement (Percent)	Special Improvement (Percent)
1965	$ 86,696,221	100%	--	--
1966	76,044,658	86.2	13.8%	--
1967	167,887,573	82.1	17.9	--
1968	157,377,264	73.1	20.4	6.5%
1969	196,531,760	66.4	17.1	16.5
1970	239,772,779	58.0	19.4	22.6
1971[2]	263,883,650	44.2	17.7	38.1
Total	$1,188,293,395	66.6%	16.8%	16.6%

[1] Does not include student loan and scholarship programs

[2] Figures not complete for full fiscal year 1971

SOURCE: U.S. Congress, House, Committee on Interstate and Foreign Commerce, Subcommittee on Public Health and Environment. Health Professions Educational Assistance Amendments of 1971: Report on H.R. 703, etc. 92nd Congress, 1st Session, No. 92-10, April 2-29, 1971. Washington, D.C., Government Printing Office, 1971, p. 470.

TABLE II: HEALTH PROFESSIONS EDUCATIONAL ASSISTANCE CONSTRUCTION PROGRAM SUMMARY, FISCAL YEARS 1965-1971 (TO MAY 26, 1971)

Type of School	New First Year Places	Federal Share	Total Cost	Federal Share Per Place	Total Cost Per Place
Medical, Total	2,695	$540,087,693	$1,253,248,808	$200,404	$465,027
New	1,097	152,874,022	335,425,528	139,356	305,766
Existing	1,587	381,788,854	909,590,461	240,573	573,151
New-Existing	11	5,424,817	8,232,819	493,165	748,438
Osteopathy, Total (ex.)	23	8,951,321	24,791,879	389,188	1,077,908
Dental, Total	1,123	173,225,166	345,577,920	154,252	307,727
New	396	43,610,192	68,525,945	110,127	173,045
Existing	727	129,614,974	277,051,975	177,462	381,089
Optometry, Total (ex.)	181	7,085,868	14,098,422	39,148	77,892
Podiatry, Total (ex.)	88	4,249,138	9,010,371	48,296	102,391
Pharmacy, Total (ex.)	556	19,037,411	53,123,197	34,240	95,545
Public Health, Total	465	19,294,251	31,882,886	41,493	68,565
New	40	980,478	1,232,801	24,512	30,820
Existing	425	18,313,773	30,650,085	43,091	72,118

(continued next page)

TABLE II: HEALTH PROFESSIONS EDUCATIONAL ASSISTANCE CONSTRUCTION PROGRAM SUMMARY, FISCAL YEARS 1965-1971 (TO MAY 26, 1971)(cont.)

Type of School	New First Year Places	Federal Share	Total Cost	Federal Share Per Place	Total Cost Per Place
Veterinary Medicine, Total	170	9,589,256	23,939,524	56,407	140,821
Nursing, Total HPEA	766	8,830,647	22,568,746	11,528	29,463
New	134	1,381,419	2,303,268	10,309	17,189
Existing	632	7,449,228	20,265,478	11,787	32,066
All Schools, Total	6,067	790,350,751	1,778,241,253	130,270	293,101
New	1,667	198,846,111	407,487,342	119,284	244,444
Existing	4,389	586,079,823	1,362,521,392	133,534	310,440
New-Existing	11	5,424,817	8,232,819	493,165	748,438

*Source: U.S. Congress, Senate, Committee on Labor and Public Welfare, Health Professions Educational Assistance Amendments of 1971: Report on S.934, 92nd Congress, First Session, Senate Report No. 92-251, July 12, 1971. Washington, D.C., Government Printing Office, 1971. p. 8.

TABLE III: HPEA FORMULA GRANTS BY DISCIPLINE AND FISCAL YEAR, 1966-1971

Discipline	Fiscal Yr. 66 Num. of Schools	AMT.	Fiscal Yr. 67 Num. of Schools	AMT.	Fiscal Yr. 68 Num. of Schools	AMT.	Fiscal Yr. 69 Num. of Schools	AMT.	Fiscal Yr. 70 Num. of Schools	AMT.	Fiscal Yr. 71 Num. of Schools	AMT.	TOTAL AMT. Fiscal Yrs. 1966-71
Medicine....91		$6,566,249	99	$18,780,518	99	$20,242,500	100	$21,123,000	101	$21,254,226	108	$21,823,763	$109,790,296
Osteopathy...5		355,834	5	983,293	5	1,063,000	6	1,126,000	6	1,126,798	7	1,133,875	5,888,800
Dentistry...49		2,975,283	53	8,440,653	51	8,859,500	51	9,213,000	51	9,204,031	52	9,386,767	47,999,234
Optometry....9		398,119	10	1,231,266	10	1,350,500	10	1,480,500	11	1,516,937	12	1,6[illegible],976	7,601,318
Pharmacy.....		.....	.....	.....	.....	.....	.....	.....	70	10,1[illegible],494	66	9,629,657	19,826,151
Podiatry.....5		186,585	5	564,270	5	635,000	5	693,500	5	694,553	5	693,500	3,467,338
Vet. Med.....		.....	.....	.....	.....	.....	.....	.....	17	2,505,000	18	2,548,462	5,055,403
TOTAL.....159		10,482,000	172	30,000,000	170	32,160,500	172	33,636,000	261	46,500,000	268	46,800,000	199,578,500

[1]Schools of pharmacy and veterinary medicine not eligible for Funds in fiscal year 1966-69

SOURCE: U.S. Congress, Denate, Committee on Labor and Public Welfare, Health Professions Educacional Assistance Amendments of 1971 Report on S. 934, 92nd Congress, 1st Session, Senate Report No. 92-251, July, 12,1971 Washington, D.C., Government Printing Office, 1971, p.9.

TABLE IV: HEALTH PROFESSIONS EDUCATIONAL ASSISTANCE ACT, SPECIAL PROJECT GRANTS, FISCAL YEARS 1968-1971

Discipline	Fiscal Year 1968		Fiscal Year 1969[1]		Fiscal Year 1970		Fiscal Year 1971[2]	
	Number of Schools	Amount	Number of Schools	Amount	Number of Schools	Amount	Number of Schools	Amount
Medicine	23	$5,476,610	60	$19,783,689	79	$34,942,170	92	$71,200,000
Osteopathy	2	410,299	4	1,118,612	6	2,050,420	7	2,000,000
Dentistry	11	2,689,059	26	8,722,630	35	12,961,689	41	20,300,000
Optometry	7	637,610	8	1,685,485	9	2,288,659	10	3,050,000
Pharmacy	0		0		2	267,500	5	1,000,000
Veterinary Medicine	0		0		1	781,725	3	2,000,000
Podiatry	5	918,127	5	1,053,584	5	1,007,438	5	1,000,000
Total	48	10,131,705	103	32,364,000	137	54,299,601	163	100,550,000

[1]Schools of pharmacy and veterinary medicine not eligible for funds in fiscal year 1966-69.

[2]Estimate

Note: Special project grants were not awarded in 1966 and 1967 due to a lack of funding.

Source: U.S. Congress, Senate, Committee on Labor and Public Welfare, Health Professions Educational Assistance Amendments of 1971: Report on S.934, 92nd Congress, 1st Session, Senate Report No. 92-157, July 12, 1971, Washington, D.C., Government Printing Office, 1971, p. 11.

TABLE V: H.P.E.A. STUDENT FINANCIAL AID (LOANS AND SCHOLARSHIPS) BY TYPE OF SCHOOL, FISCAL YEARS 1965-1971

Discipline	1965[1]	1966[1]	1967	1968	1969	1970	1971	Total by Discipline
Medicine	$6,628,787	$9,834,258	$15,986,991	$18,029,365	$19,533,710	$15,700,434	$20,328,599	$106,042,144
Dentistry	2,870,963	4,623,920	7,940,200	8,297,943	9,131,979	6,749,338	8,475,924	48,090,267
Osteopathy	398,088	648,458	1,360,434	1,221,996	1,180,480	844,450	1,110,888	6,764,794
Optometry	302,162	493,364	1,015,582	1,104,639	1,276,732	1,055,392	1,426,514	6,674,385
Pharmacy[2]			2,642,087	3,705,267	4,750,105	4,868,128	6,221,760	22,187,347
Podiatry[2]			254,906	343,656	466,034	393,424	542,504	2,000,524
Vet. Medicine[3]				1,154,786	1,308,777	1,829,480	2,143,808	6,436,851
TOTAL (By Year)	10,200,000	15,600,000	29,200,200	33,857,652	37,647,817	31,440,646	40,249,997	198,196,312

[1]Loan program only - scholarship program did not begin until f.y. 1971

[2]Included in program beginning in f.y. 1967

[3]Included in loan program beginning in f.y. 1968; included in scholarship program beginning in f.y. 1970

Source: U.S. Congress, House, Committee on Interstate and Foreign Commerce, Subcommittee on Public Health and Environment, Health Professions Educational Amendments of 1971: Hearings on H.R. 703, 92nd Congress, 1st Session, No. 92-10, April 2-29, 1971. Washington, D.C., Government Printing Office, 1971. pp. 476-477.

TABLE VI: H.P.E.A. STUDENT ASSISTANCE PROGRAM

A. LOANS

Fiscal Year	Number of Schools Participating in Program	Number of Eligible Students	Number of Students Assisted	% of Students Assisted	Dollars Allocated	Average Amount Per Recipient
1965	147	47,430	11,554	24%	$10,200,000	$883
1966	147	48,673	15,237	31%	15,600,000	1,024
1967	196	58,874	20,168	34%	25,325,000	1,256
1968	217	64,473	25,383	39%	26,659,476	1,050
1969	229	68,089	25,445	37%	26,429,000	1,039
1970	243	76,618	22,874	30%	15,900,000	695
1971	252	84,430	22,442	27%	24,750,000	1,103
TOTAL (Average)		$448,587	$143,103	32%	$144,863,476	$1,012

B. SCHOLARSHIPS

Fiscal Year	Number of Schools Participating in Program	Number of Eligible Students	Number of Students Assisted	% of Students Assisted	Dollars Allocated	Average Amount Per Recipient
1967	227	19,403	3,824	19%	$3,875,200	$1,013
1968	238	38,872	7,964	20%	7,198,176	904
1969	244	59,342	14,152	24%	11,218,817	793
1970	268	84,556	19,776	23%	15,540,648	786
1971	269	89,595	18,255	20%	15,500,000	849
TOTAL (Average)		$291,768	$63,971	22%	$53,332,841	$834

Source: U.S. Congress, Senate, Committee on Labor and Public Welfare, Health Professions Educational Assistance Amendments of 1971: Report on S.934, 92nd Congress, First Session, Senate Report 92-251, July 13, 1971. Washington, D.C., Government Printing Office, 1971, pp. 11-12.

TABLE VII: HEALTH PROFESSIONS STUDENT LOAN PROGRAM, FISCAL YEARS 1965-1971

Type of School	Number of Schools Participating in Program	Enrollment of Eligible Students in Participating Schools	Number of Students Assisted	Percentage of Students Assisted	Amount Allocated
Fiscal Year 1965:					
Medicine	87	31,416	7,186	23%	$6,628,787
Dentistry	46	12,954	3,367	26	2,870,963
Osteopathy	5	1,651	614	37	398,088
Optometry	9	1,409	387	27	302,162
TOTAL	147	47,430	11,554	24%	$10,200,000
Fiscal Year 1966:					
Medicine	87	32,040	9,475	30%	$9,834,258
Dentistry	46	13,434	4,472	33	4,623,920
Osteopathy	5	1,710	716	42	648,458
Optometry	9	1,489	564	38	493,364
TOTAL	147	48,673	15,237	31%	$15,600,000
Fiscal Year 1967:					
Medicine	88	32,883	11,303	34%	$14,217,791
Dentistry	46	13,720	5,530	40	7,132,000
Osteopathy	5	1,781	937	53	1,262,634
Optometry	10	2,016	656	33	869,782
Pharmacy	45	8,139	1,584	19	1,638,887
Podiatry	2	335	158	47	203,906
TOTAL	196	58,874	20,168	34%	$25,325,000

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TABLE VII: HEALTH PROFESSIONS STUDENT LOAN PROGRAM, FISCAL YEARS 1965-1971 (cont.)

Type of School	Number of Schools Participating in Program[1]	Enrollment of Eligible Students in Participating Schools	Number of Students Assisted	Percentage of Students Assisted	Amount Allocated
Fiscal Year 1968:					
Medicine	93	33,749	13,073	39%	$14,736,356
Dentistry	47	14,114	6,634	47	6,822,117
Osteopathy	5	1,838	1,266	69	1,044,947
Optometry	10	2,113	748	35	856,113
Pharmacy	48	9,291	2,311	25	1,810,357
Podiatry	2	413	208	50	234,800
Veterinary Medicine	12	2,955	1,143	39	1,154,786
TOTAL	217	64,473	25,383	39%	$ 26,065,476
Fiscal Year 1969:					
Medicine	98	34,969	13,251	38%	$14,240,726
Dentistry	50	14,640	6,373	44	6,777,734
Osteopathy	5	1,876	1,050	56	892,880
Optometry	10	2,249	853	38	883,332
Pharmacy	49	9,929	2,540	26	2,019,517
Podiatry	3	684	303	44	306,034
Veterinary Medicine	14	3,742	1,075	29	1,308,777
TOTAL	229	68,089	25,445	37%	$26,429,000
Fiscal Year 1970:					
Medicine	100	36,905	11,009	30%	$8,442,212
Dentistry	52	15,750	5,392	34	3,584,393
Osteopathy	6	1,981	860	43	452,650
Optometry	11	2,477	891	36	551,392

(continued)

TABLE VII: HEALTH PROFESSIONS STUDENT LOAN PROGRAM, FISCAL YEARS 1965-1971 (cont.)

Type of School	Number of Schools Participating in Program[1]	Enrollment of Eligible Students in Participating Schools	Number of Students Assisted	Percentage of Students Assisted	Amount Allocated
Pharmacy.....	53	13,935	3,184	23%	$1,781,147
Podiatry.....	3	697	253	36	166,824
Veterinary Medicine.....	18	4,873	1,285	26	921,380
TOTAL.....	243	76,618	22,874	30%	$15,900,000
Fiscal Year 1971:					
Medicine.....	102	40,341	10,072	25%	$13,184,745
Dentistry.....	52	16,311	4,077	25	5,471,318
Osteopathy.....	6	2,130	787	37	729,683
Optometry.....	11	2,842	1,191	42	917,883
Pharmacy.....	59	16,828	4,257	25	2,812,775
Podiatry.....	4	975	340	35	334,007
Veterinary Medicine.....	18	5,003	1,718	34	1,299,589
TOTAL.....	252	84,430	22,442	27%	$24,750,000

[1]While all schools in the loan program are included in the scholarship program, some of the schools have the scholarship program only.

Source: U.S. Congress, House, Committee on Interstate and Foreign Commerce, Subcommittee on Public Health and Environment. Health Professions Educational Assistance Amendments of 1971: Hearings on H.R.703, 92nd Congress, First Session, No. 92-10, April 2-29, 1971. Washington, D.C., Government Printing Office 1971, p. 476.

TABLE VIII: HEALTH PROFESSIONS SCHOLARSHIP PROGRAM, FISCAL YEARS 1967-1971

Type of School	Number of Schools Participating in Program	Enrollment of Eligible Students in Participating Schools	Number of Students Assisted	Percentage of Students Assisted	Amount Allocated
Fiscal Year 1967 (Jan. 10, First Year Class):					
Medicine	88	8,754	1,635	18%	$1,769,200
Dentistry	49	3,824	799	20	808,200
Osteopathy	5	469	147	31	97,800
Optometry	10	695	144	21	145,800
Pharmacy	70	5,373	1,040	19	1,003,200
Podiatry	5	288	59	21	51,000
TOTAL	227	19,403	3,824	19%	$3,875,200
Fiscal Year 1968 (Jan. 10, First and Second Year):					
Medicine	95	17,514	3,356	19%	$3,293,009
Dentistry	50	7,785	1,585	20	1,475,826
Osteopathy	5	971	306	32	177,049
Optometry	10	1,363	303	22	248,526
Pharmacy	73	10,642	2,280	21	1,894,910
Podiatry	5	597	134	22	108,856
TOTAL	238	38,872	7,964	20%	$7,198,176
Fiscal Year 1969 (Jan. 10, First, Second and Third Year):					
Medicine	99	27,604	6,018	22%	$5,292,984
Dentistry	52	12,023	3,135	26	2,354,245

(continued)

TABLE VIII: HEALTH PROFESSIONS SCHOLARSHIP PROGRAM, FISCAL YEARS 1967-1971 (cont.)

Type of School	Number of Schools Participating in Program	Enrollment of Eligible Students in Participating Schools	Number of Students Assisted	Percentage of Students Assisted	Amount Allocated
Osteopathy	5	1,445	564	39%	$287,600
Optometry	10	1,970	609	31	393,400
Pharmacy	73	15,509	3,608	23	2,730,588
Podiatry	5	800	218	27	160,000
TOTAL	244	59,342	14,152	24%	$11,218,817
Fiscal Year 1970 (Jan. 10, All Four Years):					
Medicine	101	37,669	8,416	22%	$7,258,222
Dentistry	53	16,264	4,087	25	3,164,945
Osteopathy	6	1,981	770	39	391,800
Optometry	11	2,477	794	32	504,000
Pharmacy	74	20,206	4,259	21	3,086,981
Podiatry	5	1,096	343	31	2 6,600
Veterinary Medicine	18	4,873	1,107	22	908,100
TOTAL	268	84,566	19,776	23%	$15,540,648
Fiscal Year 1971 (Jan. 10, All Four Years):					
Medicine	102	40,341	7,757	19%	$7,143,854
Dentistry	53	16,831	3,500	21	3,004,606
Osteopathy	6	2,130	673	32	381,205

(continued)

TABLE VIII: HEALTH PROFESSIONS SCHOLARSHIP PROGRAM, FISCAL YEARS 1967-1971 (cont.)

Type of School	Number of Schools Participating in Program	Enrollment of Eligible Students in Participating Schools	Number of Students Assisted	Percentage of Students Assisted	Amount Allocated
Optometry.....	11	2,842	759	27%	$508,631
Pharmacy.....	74	21,283	4,175	20	3,408,985
Podiatry.....	5	1,165	316	27	208,497
Veterinary Medicine	18	5,003	1,075	21	844,219
TOTAL.....	269	89,595	18,255	20	$15,500,000

Source: U.S. Congress, House, Committee on Interstate and Foreign Commerce, Subcommittee on Public Health and Environment. Health Professions Educational Assistance Amendments of 1971: Hearings on H.R.703, 92nd Congress, First Session, No. 92-10, April 2-29, 1971. Washington, D.C., Government Printing Office, 1971, p. 477.

TABLE IX: ENROLLMENTS AND GRADUATES IN HEALTH PROFESSIONS SCHOOLS, 1963-1971
(NOTE: "1964" = Academic Year 1963-1964, etc.)

DENTAL	1963	1964	1965	1966	1967	1968	1969	1970	1971
Total	13,691	13,876	14,020	14,421	14,955	15,408	16,008	16,553	17,305
First Year	3,680	3,770	3,836	3,806	3,942	4,200	4,203	4,355	4,745
Graduates	3,233	3,213	3,181	3,198	3,360	3,457	3,433	3,749	3,775

SOURCES: American Dental Association, Council on Dental Education, Division of Educational Measurements, Annual Report on Dental Education 1971-1972, Chicago, 1972, pp. 15, 20. U.S. Department of Health, Education and Welfare, Bureau of Health Manpower Education, Division of Dental Health, Manpower Supply and Educational Statistics for Dentists and Dental Auxiliaries (as of March 3, 1971), P.H.S. Publication No. 263, Section 20, 1971, p. 4.

MEDICAL	1963	1964	1965	1966	1967	1968	1969	1970	1971
Total	31,491	32,001	32,428	32,835	33,423	34,538	35,833	37,669	40,487
First Year	8,642	8,772	8,856	8,759	8,964	9,479	9,863	10,401	11,348
Graduates	7,264	7,336	7,409	7,574	7,743	7,973	8,059	8,367	8,974

Table includes basic science students.

SOURCE: Journal of the American Medical Association, Vol. 222, No. 8 (November 20, 1972), p. 982.

(continued)

TABLE IX: ENROLLMENTS AND GRADUATES IN HEALTH PROFESSIONS SCHOOLS, 1968-1971
(NOTE: "1964" = Academic Year 1963-1964, etc.)(cont.)

PODIATRY	1963	1964	1965	1966	1967	1968	1969	1970	1971
Total	496	560	662	707	838	926	1,061	1,097	1,155
First Year	--[1]	195	177	223	283	291	331	293	329
Graduates	114	96	122	135	164	162	204	251	246

[1]Not Available.
[2]Estimated.

SOURCE: Pennell, Maryland S., "Podiatric Education and Manpower," Journal of Podiatric Educations, June 1970.

OSTEOPATHY	1963	1964	1965	1966	1967	1968	1969	1970	1971
Total	1,581	1,594	1,661	1,681	1,763	1,823	1,879	1,997	2,151
First Year	433	441	472	464	480	509	521	577	623
Graduates	373	358	395	369	408	430	428	433	475

SOURCES: (1963-1965), Journal of the American Osteopathic Association, Education Supplements, January 1964, 1965, 1966; (1966-1971) U.S. Congress, Senate, Committee on Labor and Public Welfare, Health Manpower Legislation, 1971: Hearings on S.934, 92nd Congress, First Session, May 3-10, 1971, Washington, D.C., Government Printing Office, 1971. Statement of R. S. Bremen, President, American Association of Colleges of Osteopathic Medicine, p. 453.

(continued)

TABLE IX: ENROLLMENTS AND GRADUATES IN HEALTH PROFESSIONS SCHOOLS, 1968-1971
(NOTE: "1964" = Academic Year 1963-1964, etc.)(cont.)

PHARMACY	1963	1964	1965	1966	1967	1968	1969	1970	1971
Total[1]	10,632	10,405	12,078	12,495	13,221	14,474	14,932	15,292	15,638
Third-Last Year	4,154	4,445	4,483	4,647	5,234	5,616	5,469	5,521	5,876
Graduates	4,163	2,218	3,388	3,692	3,799	4,039	4,288	4,758	- 4,575

[1]Last Three Years.

SOURCES: (1963) Peterson, P.Q., and Pennell, Maryland Y., Health Manpower Source Book: Section 15, Pharmacists, Public Health Service Publication No. 263, 1963, p. 63; U.S. Department of Health, Education and Welfare, Health Resources Statistics: Health Manpower, 1965, Public Health Service Publication No. 1509, 1965, p. 124; (1964-1971) U.S. Congress, Senate, Committee on Labor and Public Welfare, Health Manpower Legislation, 1971: Hearings on S.934, 92nd Congress, First Session, May 3-10, 1971, Washington, D.C., Government Printing Office, 1971, Statement of the American Association of Colleges of Pharmacy, p. 710.